



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/723,437

11/26/2003

Akira Miura

1344.1129

6253

21171 7590 01/10/2007
STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

SEDIGHIAN, REZA

ART UNIT

PAPER NUMBER

2613

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/723,437

Applicant(s)

MIURA ET AL.

Examiner

M. R. Sedighian

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-10 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/27/06 and 5/10/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Art Unit: 2613

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 5, and 7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Poti et al. (US Patent No: 7,039,270 B2).

Regarding claims 1 and 9, Poti teaches a wavelength allocation method of signal light for use when allocating signal lights of two or more waves on wavelength grids (col. 1, lines 35-45) where previously determined wavelength spacing is made a base unit (col. 1, lines 40-42) in wavelength division multiplexing optical transmission (col. 2, lines 1-9) in which wavelength division multiplexed optical signal obtained by multiplexing (col. 2, lines 5-6) a plurality of signal lights of different wavelengths is transmitted over an optical transmission path (col. 2, line 6 and 2, fig. 1), the method comprising: setting the consecutive allocation wavelength number of signal lights to be allocated consecutively on said wavelength grids to different values according to wavelength bands (col. 2, lines 29-35) based on wavelength dependence of a generation amount of four-wave mixed light on said optical transmission path (col. 2, lines 10-15, 20-25, 40-45); and consecutively allocating the signal lights on said wavelength grids in accordance with the set consecutive allocation wavelength number (col. 2, lines 25-27, 29-32 and 7, 8, 9, fig. 2), but not allocating the signal light on at least one wavelength grid adjacent to the wavelength grids on which a group of signal lights is consecutively allocated (col. 2, lines 35-40).

Regarding claim 5, Poti teaches when a plurality of upper level wavelength groups (col. 2, lines 29-37) for collectively processing the signal lights of a plurality of wavelengths in an optical node on said optical transmission path (col. 2, lines 1-9), is provided for said wavelength grids (col. 2, lines 28-30), for each signal band on which the signal lights are allocated in each of said upper level wavelength groups, the signal lights are allocated consecutively on the wavelength grids within said signal bands, in accordance with the consecutive allocation wavelength number determined based on the wavelength dependence of said generation amount of four-wave mixed light (col. 2, lines 20-35), but the signal light is not allocated on at least one wavelength grid adjacent to the wavelength grids on which said group of signal lights are allocated consecutively (col. 2, lines 35-43).

Regarding claim 7, Poti teaches the wavelength grid is equally spaced (col. 2, lines 28-30).

Regarding claim 8, Poti teaches the equal spacing is 25 GHz (col. 2, lines 20-23).

Regarding claim 10, Poti teaches the WDM signal light is transmitted via an optical transmission path (2, fig. 1).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Poti et al. (US Patent No: 7,039,270 B2) in view Grasso et al. (US Patent No: 5,943,151).

Regarding claim 6, Poti differs from the claimed invention in that Poti does not specifically disclose an optical node such an optical add/drop multiplexing node and an optical compensation node in the transmission system. However, it is well known to add add/drop multiplexer and compensation units along the transmission path of an optical network to selectively add and drop signals and to further compensate for distortion. For example, Grasso teaches an optical transmission system (90, 55, 80, fig. 5) by incorporating an optical add/drop multiplexer (58, fig. 5) and compensation unit (125, fig. 5). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate add/drop modules and a compensation unit such as the ones of Grasso in the transmission system of Poti in order to selectively add and drop optical signals and to further compensate for dispersion of the transmission path to further increase the transmission capacity and the transmission distance.

5. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. R. Sedighian whose telephone number is (571) 272-3034. The examiner can normally be reached on 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


M. R. SEDIGHIAN
PRIMARY EXAMINER